

Work Order ID 110107

December-17-13 9:15:10 AM

110107

Page 1

Item ID: D350-748-201

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 13-12-19 Tooling: _____

Date: _____

QC: _____ Date: _____ SPC (Y/N): _____

Date: _____

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D350-748-241	G

100

100

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile & type labels per PPPD350-748-201

0.00

0.00

CHG003

NOV 10 2014

38
9-89

14-11-10

110

110

CNC Bend 2

CNC Alpha 160 Bender

BENDING MACHINE - CROSSTUBES

Memo

Bend tube as per Dwg D350-748-241 using CNC bender program D350A and Folio FT

*****UNDER BEND .225" PER SIDE*****

****USE (4) DT9824 SHIM BLOC TO CHECK STRAIGHTNESS****

0.00

0.00

DLT 14-08-21

Work Order ID 110107

110107

Page 2

December-17-13 9:15:10 AM

Item ID: D350-748-201

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

USE (4) DT9824 SHIM BLOC TO CHECK STRAIGHTNESS

N/A

14-8-21

125

0.00

125

Outsource1

Memo

0.00

Outsource process - Heat Treat

ISSUE P/O TO METCOR: 25480

Stress relief

Heat treat crosstube as per QSI010 4.3 within 12h after bending

CL 14/08/21 ①

126

Receive & Inspect for Damage & Mat'l Certs

0.00

126

Packaging

Memo

0.00

Packaging

14/4/26 ①

Work Order ID 110107

110107

Page 3

December-17-13 9:15:10 AM

Item ID: D350-748-201

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

127 QC15- Crosstube Dimensional Check 0.00

127

QC Memo
Quality Control ***MARK CUT LINES***

0.00

DAS 03 9-89 14-8-28

128 0.00

128

Crosstubes Memo
Crosstubes CUT TUBE AT HEIGHT ON FAI SHEET

0.00

J 14-08-28

SA-31.58
SB-31.53

VERF HEIGHT BY QC 15 LEVEL INSPECTOR

VERF TWIST 0.118 BY QC15 LEVEL INSPECTOR

DAS 03 9-89 14-9-2

Work Order ID 110107

December-17-13 9:15:10 AM

110107

Page 4

Item ID: D350-748-201

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

130

Crosstubes

Crosstubes

Crosstubes

Memo

0.00

0.00

2- Drill Tube as per Dwg D350-748-241 Using DT8876 Drill Jigs,
Set-up drill table as per QSI 010

3 -Deburr

4- Engrave Part # and Batch # as per Dwg D350-748-241

5-Remove all marks from tube within limits of D350-748-241

mm 14/09/05

BL 14-09-04

140

140

QC

Quality Control

QC6- Inspect dimensions to drawing

Memo

0.00

0.00

1 14-9-22

DAS

38

9-9-89

Work Order ID 110107

December-17-13 9:15:10 AM

110107

Page 5

Item ID: D350-748-201

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

Outsource process-Cadplate per QSI017 4.1.9.1

0.00

150

Outsource3

Memo

0.00

Outsource process - Cad plate

Issue P/O: 25886

Stress relief at 375° for 5 hours

Magnetic Particle Inspect per ASTM E1444

Cadium Plate per AMS-QQ-P-416B, Class 1, Type 2

Embrittle relief at 375° for 8 hours, Chromate Treat

Possibe Supplier: Southwest United Industries

Ensure Certificate of Conformity is attached

CZ 14/108/23 0

160

Receive & Inspect for Damage & Mat'l Certs

0.00

160

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

1X SP14-10-27

170

QC5- Inspect part completeness to step on W/O

0.00

170

QC

Memo

0.00

Quality Control

① 14-10-27

DAS
9
9-89

Work Order ID 110107***110107***

Page 6

December-17-13 9:15:10 AM

Item ID: D350-748-201

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

174

Outsource process - NDT per QSI038 4.1

0.00

174

Outsource2

Memo

0.00

Outsource process - NDT

ISSUE P/O TO ACCUREN: 26273cd 14/10/29 ①

176

Receive & Inspect for Damage & Mat'l Certs

0.00

176

Packaging

Memo

0.00

Packaging

1x SP 14-10-29

178

QC5- Inspect part completeness to step on W/O

0.00

178

QC

Memo

0.00

Quality Control

1DAS
36
9-89

OCT 29 2014

Work Order ID 110107

110107

Page 7

December-17-13 9:15:10 AM

Item ID: D350-748-201

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180		0.00							
180	SprayPaint					1			DAS 41 9-89
SprayPaint	Memo	0.00							14-10-29
Spray Painting	1-Prime inside crosstube as per QSI 005 4.2 BATCH: <u>129807</u> T <u>1230-100</u> 2-Paint Outside of Tube as per Dart QSI 005 4.2 BATCH: <u>130531</u> T <u>500-600</u>								
190	QC14- Inspect Spray Paint	0.00							
190									DAS 02 9-89
QC	Memo	0.00							14-10-30
Quality Control	Then, Wrap in plastic bag to protect from scratches								

Work Order ID 110107

December-17-13 9:15:10 AM

110107

Page 8

Item ID: D350-748-201

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200

0.00

200

Crosstubes

Crosstubes

Memo

0.00

INSTALL GROUND WIRE INSERT, THEN INSERT SCREW AND WASHER

1-Abrade mating surfaces of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg

2-Install supports with Proseal 890 per D350-748-241 and QSI 015

A/R Proseal 890 Batch: 130090
EXP: 1/15

3-Install supports clamps Using Dt8876 as per Dwg D350-748-241, Torque to 60-80 IN-LBS.

PROSEAL CURE TIME 72 HOURS:

Start: 14-11-1
Finish: 14-11-7

1

DAS
41
9-89
14-11-1

210

QC5- Inspect part completeness to step on W/O 0.00

210

QC

Memo

0.00

Quality Control

RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.

14-11-05

DAS
9
9-89

PTO
→

DQA:

Date: 14/12/10



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 14/12/19

Work Order update only ☐

Work Order: <u>110107</u>	DISPOSITION Rework <input checked="" type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D350-748-201</u>		Skid-tube <input type="checkbox"/>	Crosstube <input checked="" type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
NCR No. <u>14-4399</u>		Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design <input checked="" type="checkbox"/>	14.11.05	200	①	Work order call for clamps MS21920-22 but was found at ess. clamps are too long	DAS 12 9-89 14/11/5	Replace MS21920-22 with MS21920-20 B#M128650	CR 14.11.05	DAS 9 9-89 14.11.05	DAS 29 9-89
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input checked="" type="checkbox"/> Finish	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
---	--	---	--	--

Work Order ID 110107

December-17-13 9:15:10 AM

110107

Page 9

Item ID: D350-748-201

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start

NR1

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

NR2

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

Pick Kit

0.00

220

Packaging

Memo

0.00

Packaging

DAS
06
9-89

DAS
31
9-89

NOV 07 2014

230

QC4- 100% Inspect kits for completeness

0.00

230

QC

Memo

0.00

Quality Control

DAS
38
9-89

14-11-10

240

Packaging

0.00

240

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD350-748-201

Location: 029
PPP Rev: _____

NOV 13 2014

DAS
46
9-89

DAS
06
9-89

Work Order ID 110107

110107

Page 10

December-17-13 9:15:10 AM

Item ID: D350-748-201

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Crosstube

Start Date: 12/17/13 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	QC21- Final Inspection - Work Order Release	0.00							
250									
QC	Memo	0.00							
Quality Control									

14/11/13
14-11-13

Picklist Print

December-17-13 9:15:10 AM

Page 1

Work Order ID: 110107
Parent Item: D350-748-201
Parent Item Name: Aft Crosstube

Start Date: 12/17/13
Start Qty: 1.00

Required Date: 12/17/13
Required Qty: 1.00

Comments: IPP Rev: A New Issue 06-07-05 JLM
IPP Rev: B Update qty of MS21042L5 06-09-12 KJ
IPP Rev C Combined manufacturing 08.04.02 EC verified by: DD
IPP Rev:D 08-06-24 revD as per dwg DD verified by:EC
IPP Rev: E 08.12.11 Step17 was step 21 KJ Verified by:EC IPP Rev:F 10.08.04 added QSI010
4.3 DD verf:EC IPP REV:G ADD UNDER BEND COMMENT 12-05-28 JLM IPP
REV:H 12.11.05 as per dwg D350-748-141G DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS4-1032-225 Rivnut		Purchased	No			200	Each	848.0000	1	1		DAS 41 9-89	14-11-2
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>		①				
				FG		30							
				M127028		30							
				ST280		129							
				M125954		20							
				M127028		109							
				st555		689							
				M127092		689							
AN4-41A Bolt		Purchased	No			220	Each	674.0000	8	8		NOV 07 2014	
	DAS 38 9-89			<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>					DAS 06 9-89	
				ST359		1							
				123346		1							
				ST515		2							
				121185		2							
				ST517		671							
				124241		171							
				124805		315			8				
				124836		185							

DAS
31
9-89

Picklist Print

December-17-13 9:15:10 AM

Page 2

Work Order ID: 110107

Parent Item: D350-748-201

Parent Item Name: Aft Crosstube

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 1.00

Required Qty: 1.00

AN4-6A DAS
BOLT 38
9-89

Purchased No

220 Each 1,235.0000

16 16

M128403

DAS
31
9-89

Location	Loc Qty	Loc Code
ST355	282	
123355	30	
M126175	2	
M127410	250	
ST514	953	
M126317	953	

AN5-32A AS
Bolt 38
9-89

Purchased No

220 Each 267.0000

4 4

M128634

DAS
31
9-89

Location	Loc Qty	Loc Code
st503	267	
124215	218	
124805	5	
m127363	14	
m127550	30	

D3500-1 DAS
Saddle 38
9-89

Manufactured No

220 Each 97.0000

4 4

115746

NOV 07 2014

DAS
31
9-89

Location	Loc Qty	Loc Code
ST428A	12	
95810	12	
ST430A	66	
108799	40	
91888	8	
94620	18	
ST431	19	
95381	19	

DAS
31
9-89

Picklist Print

December-17-13 9:15:10 AM

Page 3

Work Order ID: 110107
 Parent Item: D350-748-201
 Parent Item Name: Aft Crosstube

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 1.00

Required Qty: 1.00

D3501-1
 Bushing ~~DAS~~
 38
 9-89

Manufactured No

220 Each 485.0000

16 16

119012

Location	Loc Qty	Loc Code
ST043	160	
86913	160	
ST051	2	
103038	2	
ST052	323	
104369	80	
105395	90	
105576	40	
88532	1	
95165	112	

DAS
 86
 9-89

DAS
 31
 9-89

D3502-1
 Support

Manufactured No

200 Each 79.0000

2 2

DAS
 41
 9-89

14-11-2

Location	Loc Qty	Loc Code
LG050	79	
104334	6	
73419	3	
74873	1	
86876	1	
88465	24	
94722	20	
97212	12	
99764	12	

2

Picklist Print

December-17-13 9:15:10 AM

Page 4

Work Order ID: 110107

Parent Item: D350-748-201

Parent Item Name: Aft Crosstube

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 1.00

Required Qty: 1.00

D350-748-241TRN

Manufactured No

110

Each

10.0000

1

1

Crosstube Turning Detail

Location

Loc Qty

Loc Code

LG014

113988

10

103241

1

105672

1

105674

1

105675

1

105677

1

79392

1

86988

1

89962

1

97874

1

97879

1

1 1

BL 14-08-21

D3595-063-395

Manufactured No

200

Each

130.0000

2

2

Rubber Cushion

Location

Loc Qty

Loc Code

FG

5

87353

5

LG051

125

100373

7

102441

6

102890

3

105542

14

108010

36

109481

20

87353

17

94602

1

97526

17

98361

4

2

DAS
41
9-89

14-11-2

Picklist Print

December-17-13 9:15:10 AM

Page 5

Work Order ID: 110107
Parent Item: D350-748-201
Parent Item Name: Aft Crosstube

Start Date: 12/17/13 Required Date: 12/17/13
Start Qty: 1.00 Required Qty: 1.00

MS21042L4 Locknut Purchased No 220 Each 4,214.0000 24 24 M129934 DAS 05 9-89

Location	Loc Qty	Loc Code
FP001	38	
122452	38	
GA	30	
m126333	30	
ST314	9	
m125708	9	
st507	33	
m126073	33	
ST509	2008	
m126275	114	
m127255	1894	
ST510a	85	
m126333	85	
ST518	2011	
124231	154	
m127376	1857	

DAS 31 9-89

MS21042L5 Nut Purchased No 220 Each 840.0000 4 4 M130358 DAS 05 9-89

Location	Loc Qty	Loc Code
GA	5	
117611	5	
ST314	335	
125535	335	
ST509	500	
m127304	500	

DAS 31 9-89

Picklist Print

December-17-13 9:15:10 AM

Page 6

Work Order ID: 110107

Parent Item: D350-748-201

Parent Item Name: Aft Crosstube

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 1.00

Required Qty: 1.00

MS21920-22

Purchased

No

200

Each

103.0000

2

2

DAS
41
9-89

14-11-2

Clamp

Location

128636

Loc Qty

Loc Code

2

LG050

103

125487

5

M126420

4

M126637

4

M127255

40

M127608

50

MS27039-1-10

Purchased

No

200

Each

382.0000

1

1

DAS
41
9-89

14-11-2

SCREW

Location

128635

Loc Qty

Loc Code

①

GA

100

120449

100

ST305

26

122815

1

123522

18

125654

7

ST506

256

124326

10

m126474

246

NAS1149D0363J

Purchased

No

200

Each

4,179.0000

1

1

DAS
41
9-89

14-11-2

Washer

Location

130358

Loc Qty

Loc Code

①

GA

89

124392

89

ST294

11

113068

11

ST510a

4079

m126319

4079

Picklist Print

December-17-13 9:15:10 AM

Page 7

Work Order ID: 110107
 Parent Item: D350-748-201
 Parent Item Name: Aft Crosstube

Start Date: 12/17/13

Required Date: 12/17/13

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0463J

Purchased No

220 Each

5,122.0000

32

32

DAS
 38
 9-89

WASHER DAS
 38
 9-89

Location

Loc Qty

Loc Code

ST294

143

119097

1

121912

24

124198

35

124778

83

ST510a

4979

M126221

22

M127693

4957

DAS
 31
 9-89

NASH149D0563J

Purchased No

220 Each

4,123.0000

8

8

DAS
 38
 9-89

Washer DAS
 38
 9-89

Location

Loc Qty

Loc Code

GA

35

m125807

35

ST294

145

122452

91

123248

42

123355

12

ST510a

3943

m126319

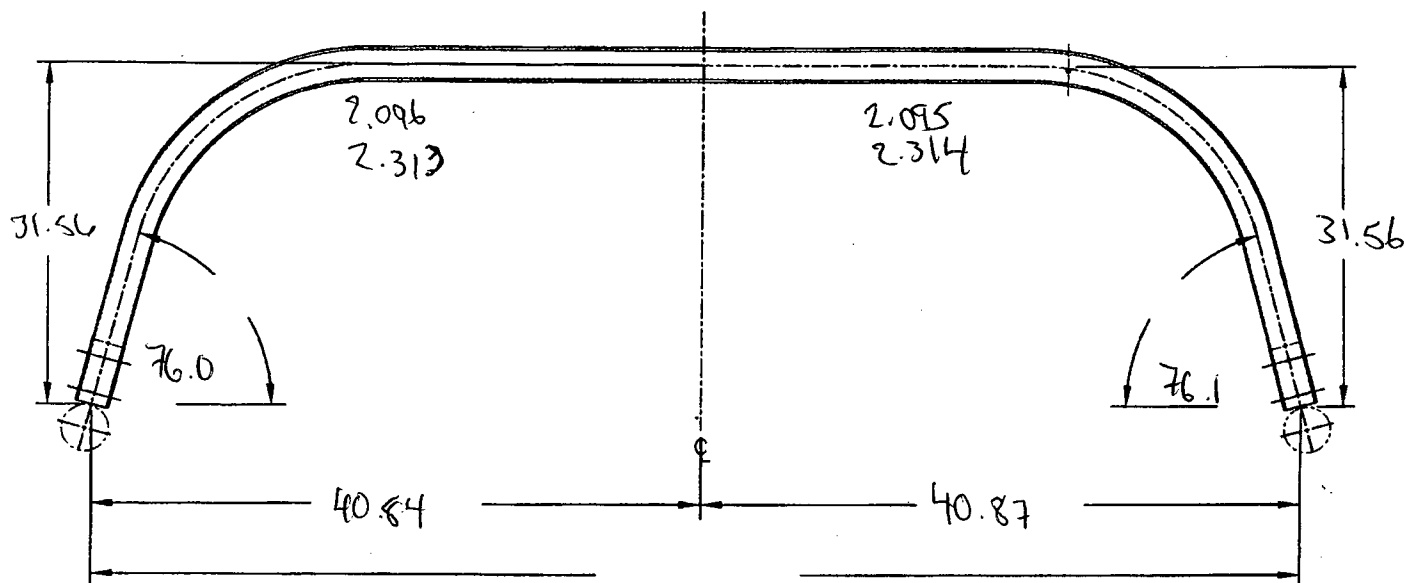
3943

NOV 07 2014

DAS
 31
 9-89

DART AEROSPACE LTD	Work Order:	110107
Description: Crosstube High Aft (AS350/355)	Part Number:	D350-748-201
Inspection Dwg: D350-748-241 Rev: G		Page 1 of 1

Required Dimension	Min	Max
Height	31.22	31.48
1/2 Span	40.77	41.03
Angle	75	77
Total Span	81.54	82.06
Bending Passes	7	--
Crushing	--	6%
Twist	--	0.25



	Side A	Side B
Bending Passes	40	41
Crushing	4.9%	4.9%
Comments		

QC15 Inspection	<i>[Signature]</i>
Date	14-8-28

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	10.08.23	Dwg Rev updated	KJ	
C	12.04.16	Added bending, crushing & twist dimensions	KJ	
D	12.07.31	Dwg Rev updated	KJ	
E	13.02.27	Dwg Rev updated	KJ	<i>[Signature]</i>

Item	Qty -241	Part Number	Description
1	X	D350-748-241	CROSSTUBE ASSEMBLY (AS 350/355 HI AFT)
2	1	D6015-125	CROSSTUBE (OR D6018-125)
3	2	D3502-1	SUPPORT
4	2	D3595-063-395	RUBBER CUSHION
5	1	AELS-1032-225	INSERT
6	1	NAS1149D0363J	WASHER (OR AN960JD10)
7	2	MS21920-22 OR MS21920-21	CLAMP (PER DART SPEC. M-MS21920-21/-22)
8	1	MS27039-1-10	SCREW
9	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6015-125 OR D6018-125
FINISHED LENGTH AFTER TURNING = 124.70±0.06 (AFTER BENDING/TRIMMING = 122.70 REF)
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 038 4.2
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCE: PER DART QSI 018 UNLESS OTHERWISE NOTED.
WALL THICKNESS ECCENTRICITY PER DART QSI 038 7.2
MIN. ALLOWABLE WALL IS -0.020 FROM NOMINAL
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: DART PART NUMBER "D350-748-241" AND BATCH NUMBER ON INSIDE OF CUFF
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 29.85 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.

TURNING

- 10) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER BENDING.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6736 OR AMS2759/1E AFTER TURNING. ACCEPTABLE TO VERIFY TENSILE STRENGTH BY HARDNESS TEST PER ASTM E18 TO 40-45 HRC.

BENDING

- 12) ALL DIMENSIONS FOR BENT TUBE ARE POST STRESS RELIEF
- 13) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES PER SIDE. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 8% BASED ON O.D. ON TOP HALF OF BEND, AND 7% ON BOTTOM HALF OF BEND.
- 14) MAX AMPLITUDE OF RIBBLING ALONG BENT PORTION OF THE TUBE IS 0.030 (ZN A1-3)
- 15) AFTER BENDING, STRESS RELIEVE TUBE AT 650°F ±0.25°F FOR A MINIMUM OF 2 HRS AND ALLOW TO COOL TO AMBIENT TEMPERATURE (REF AMS2759/1E).
- 16) MAX TWIST AFTER STRESS RELIEF: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.38 (ZN C1-3).

ASSEMBLY

- 17) TO INSTALL D3502-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.02" TO 0.05" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 18) TORQUE CLAMPS 60 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

110107 MLC
13-12-19

RELEASED
2012-11-01

G	RMV ABRASION STRIP, SUPPORT NOW W/ PROSEAL & CUSHION. ADD STRESS RELIEF, LONGER CUFF, NOW TRIM'D AFTER BEND, ADD WALL DIMS & UPDATE TOL.	CP	12.09.12
F	ADD HRC TEST OPTION (B8-1) PER PAR 09-040, ADD TWIST LIMIT (A8-1, C1-3), ADD D6015-125 OPTION (C8-1), STOCK DIM NOW MACHINED (D1-4)	CP	10.11.23
E	REVISE GENERAL NOTES; UPDATE TO CURRENT STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A8-3); ADD TOLERANCES (ZN C8-3, D2-3)	RF	09.09.30
D	MAG. PARTICLE AND CAD PLATE AS MFD.	CP	06.10.31
C	ADD CAD PLATING	CP	06.08.14
B	ADD D6018-125 & PRIME AND PAINT	CP	06.06.30
A	NEW ISSUE	CP	06.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.09.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D350-748-241 SHEET 1 OF 4 TITLE CROSSTUBE (AS 350/355 HI AFT) SCALE NTS REV. G COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

OK to bottom out as long as torque reached prior. 12/11/03

8 7 6 5 4 3 2 1

D

C

B

A

D

C

B

A

17 18
D3502-1 SUPPORT
MS21920-22 CLAMP (OR -21)
D3595-063-395 RUBBER CUSHION
2 PL



A7-2
A
A

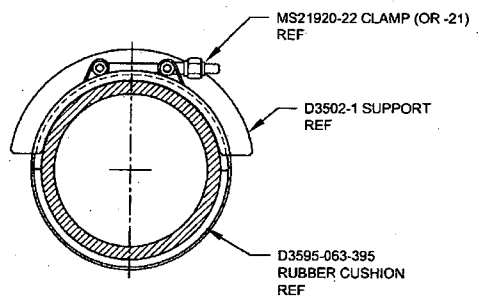
14.37

D350-748-241
BENT TUBE

INSTALL THIS SIDE ONLY, AFTER FINISH:
AELS-1032-225 INSERT
NAS1149D0363J WASHER
MS27039-1-10 SCREW

CL

**D350-748-241
ASSEMBLY DETAIL**

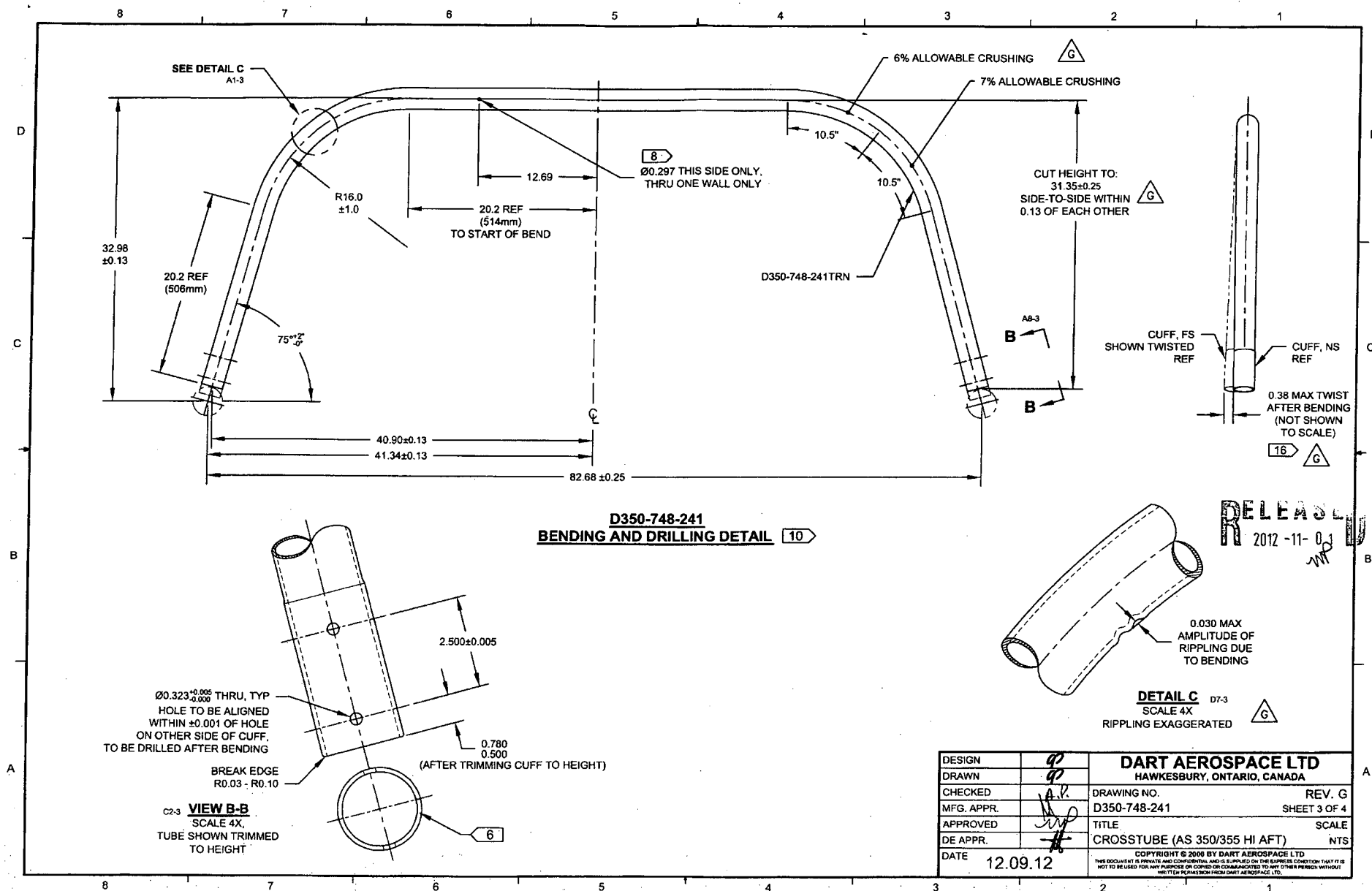


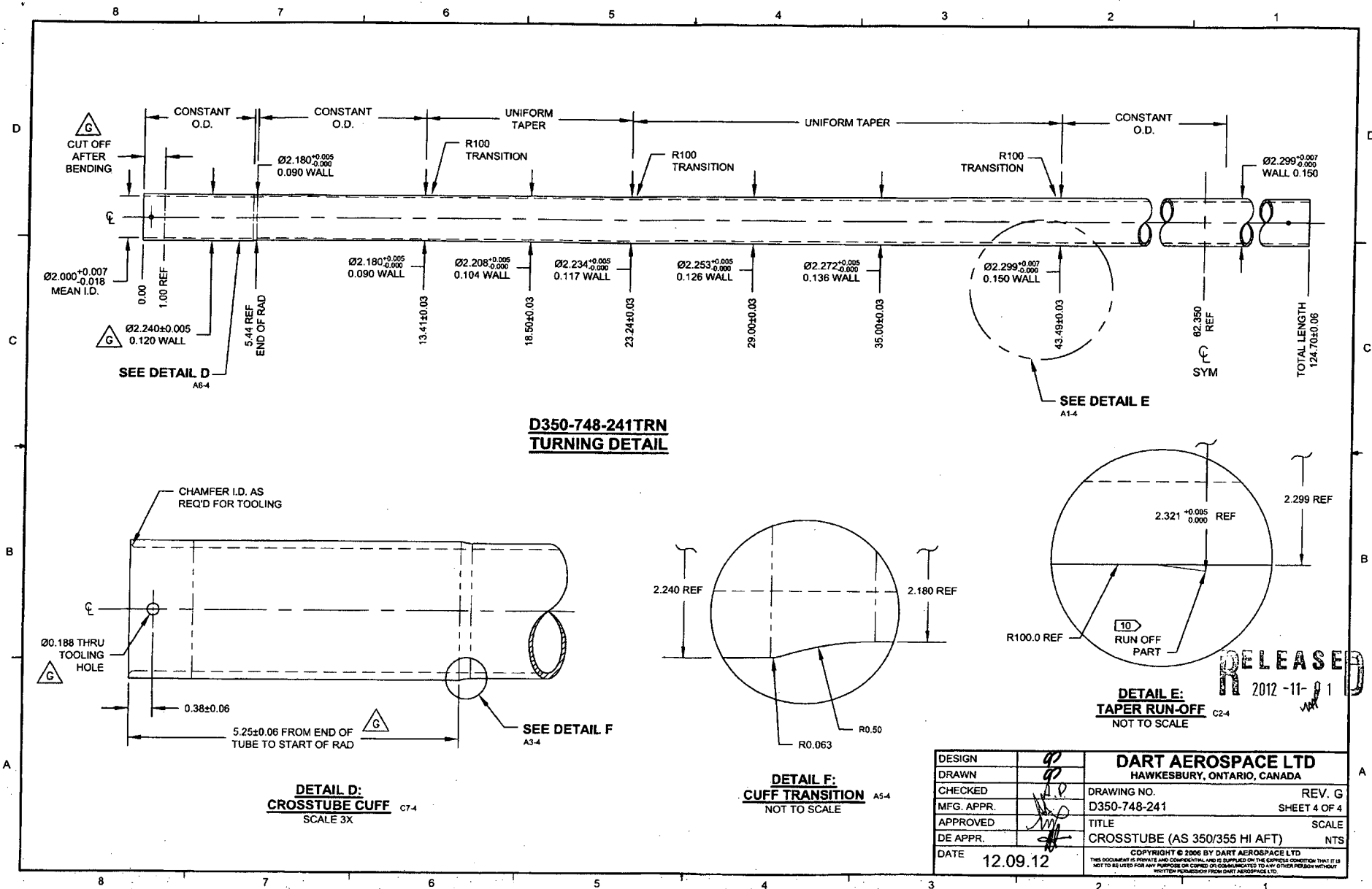
SECTION A-A D4-2
SCALE 6X

RELEASED
2012-11-01

DESIGN	92	DART AEROSPACE LTD	
DRAWN	92	HAWKESBURY, ONTARIO, CANADA	
CHECKED	92	DRAWING NO.	REV. G
MFG. APPR.	92	D350-748-241	SHEET 2 OF 4
APPROVED	92	TITLE	SCALE
DE APPR.	92	CROSSTUBE (AS 350/355 HI AFT)	NTS
DATE	12.09.12	<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

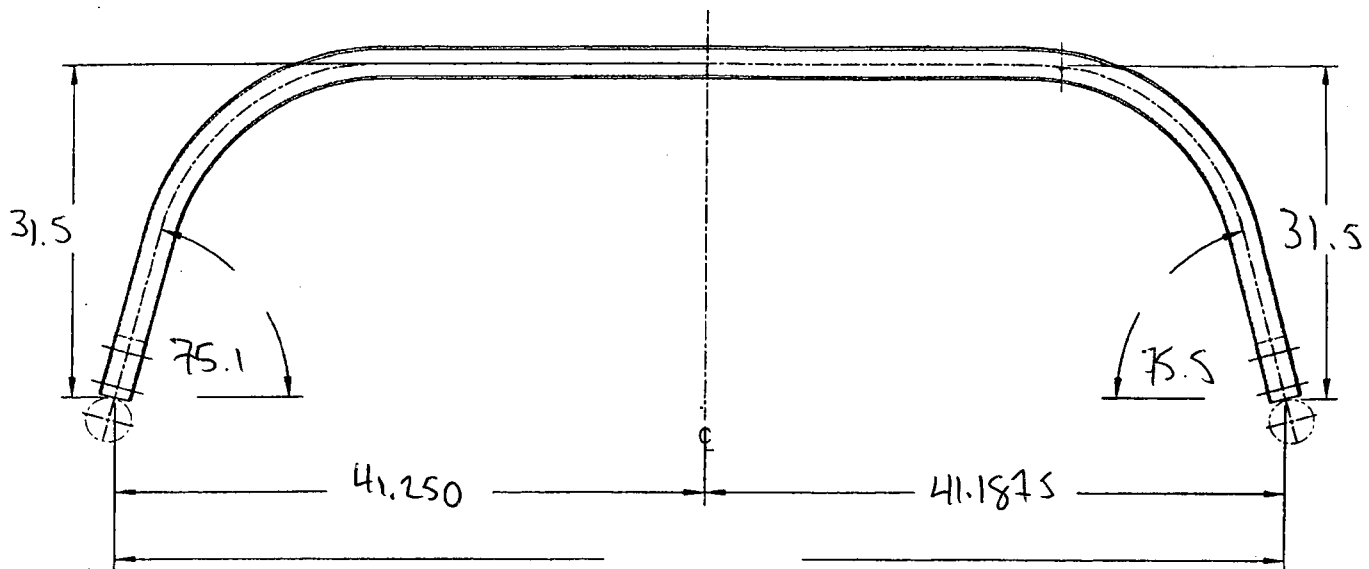




Before De-stress

DART AEROSPACE LTD		Work Order:	
Description: Crosstube High Aft (AS350/355)		Part Number:	D350-748-201
Inspection Dwg: D350-748-241 Rev: G		Page 1 of 1	

Required Dimension	Min	Max
Height	31.22	31.48
1/2 Span	40.77	41.03
Angle	75	77
Total Span	81.54	82.06
Bending Passes	7	--
Crushing	--	7%
Twist	--	0.38



	Side A	Side B
Bending Passes	40	41
Crushing		
Comments		
twist = 0.161"		

QC15 Inspection	
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	10.08.23	Dwg Rev updated	KJ	
C	12.04.16	Added bending, crushing & twist dimensions	KJ	
D	12.07.31	Dwg Rev updated	KJ	
E	13.02.27	Dwg Rev updated	KJ	
F	14.02.13	Crushing & twist dimensions revised	KJ	

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Rapport d'Inspection**Inspection Report**

BON DE TRAVAIL order	CHARGEMENT load
198168	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

1

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
25480		Steel		

SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

STRESS REL

SAE AMS 2759/1 REV.E

EXIGENCE / requirement SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results

Visual

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
5	195	D350-748-201 (1) D350-748-201 REF. 110107 (1) D350-748-201 REF. 110108 (1) D350-748-201 REF. 113064 (1) D350-748-201 REF. 113065 (1) D350-748-201 REF. 113066 1 NIL

COMMENTAIRES / comments

APPROUVÉ par / Approved by:

DATE: 2014-08-22

CONFIDENTIAL

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

CONFIDENTIAL

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

SECRET

108106

SECRET

SECRET

SECRET

SECRET

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
198168	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
25480		Steel		
<u>SPÉCIFICATIONS DU PROCÉDÉ</u> processing specifications				
STRESS REL				
SAE AMS 2759/1 REV.E				
EXIGENCE / requirement SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results				
Visual				
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
5	195	D350-748-201 (1) D350-748-201 REF. 110107 (1) D350-748-201 REF. 110108 (1) D350-748-201 REF. 113064 (1) D350-748-201 REF. 113065 (1) D350-748-201 REF. 113066 1 NIL		

COMMENTAIRES / comments

STRESS RELIEF 343C, 2 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of AMS2759.

All HT operations were in compliance with AMS2759 and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with AMS2759 and the purchase order and was found to meet the requirements.

Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec AMS2759.

Le TT a été fait tel que requis par AMS2759 et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec AMS2759 et le bon de commande et le matériel rencontre les exigences spécifiées.

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
198168	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

APPROUVÉ par / Approved by:

DATE: 2014-08-25

Isabel Otero
QA Technician





Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO25886**

Purchase Order Date 9/23/2014

PO Print Date 9/23/2014

Page Number 3 of 5

Order From :

CADORATH COATING
2150 LOGAN AVE.
WINNIPEG, MB R2R 0J2
CA

VC-CAD002

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

204 633 9420

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To Contact

Ship To Phone

Ship Via:

Day & Ross collect

Ship Acct:

5

113066

D350-748-201
CROSSTUBE

10/8/2014

1.00

\$803.42

\$803.42

Yes

10/8/2014

Stress relief at 375degree for 5hrs

Magnetic Particle Inspect per ASTM E1444

Cad Plate per AMS-QQ-P-416B, Class 1, Type 2

Embrittle relief at 375 defree for 8 hrs, Chromate Treat

C of C req'd

Line Total:

\$803.42

6

110107

D350-748-201
CROSSTUBE

10/8/2014

1.00

\$803.42

\$803.42

Yes

10/8/2014

Stress relief at 375degree for 5hrs

Magnetic Particle Inspect per ASTM E1444

Cad Plate per AMS-QQ-P-416B, Class 1, Type 2

Embrittle relief at 375 defree for 8 hrs, Chromate Treat

C of C req'd

Line Total:

\$803.42

Note:

9/23/2014

Packing Slip



Cadorath Coating

2150 Logan Avenue, Winnipeg, Manitoba R2R-0J2

Phone: (204) 633-9420 Fax: (204) 633-8033

INVOICE NUMBER:

S73376

Net 2% Interest Per Month charged on Overdue Accounts
Any claims for shortages, overcharges, or damaged goods must
be made within seven (7) days from receipt of goods.

Sold To:

Dart Aerospace Ltd.
1270 Aberdeen St.

Hawksbury, ON K6A 1K7

ShipTo:

Customer Order #:	Date Received:	Terms:	G.S.T. #:	Ship Via:	Ship Date:
PO25886	Oct-03-2014	NET 30 DAYS	10077-6547 R10001		Oct-20-2014

Item # Qty P/N & Description

1 1 EA CROSSTUBE S/N 122970
P/N D350-748-101 W/O 139527

2 1 EA CROSSTUBE S/N 110732
P/N D350-748-101 W/O 139528

3 1 EA CROSSTUBE S/N 111492
P/N D350-748-101 W/O 139529

4 1 EA CROSSTUBE S/N 113065
P/N D350-748-201 W/O 139530

5 1 EA CROSSTUBE S/N 113066
P/N D350-748-201 W/O 139534

6 1 EA CROSSTUBE S/N 110107
P/N D350-748-201 W/O 139540

7 1 EA CROSSTUBE S/N 113064
P/N D350-748-201 W/O 139544

8/14/10-27



skyservice Work Order Traveler

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO22577	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: 26273
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT INSPECTION (LIQUID PENETRANT) ON 17 CROSSTUBES

ITEM ID: D212-664-101 FWD CROSSTUBE - HIGH

- 1 - WORK ORDER ID#: 124665
- 2 - WORK ORDER ID#: 124667
- 3 - WORK ORDER ID#: 124664
- 4 - WORK ORDER ID#: 124666
- 5 - WORK ORDER ID#: 124061

ITEM ID: D212-664-201 AFT CROSSTUBE - HIGH

- 5 - WORK ORDER ID#: 124061
- 6 - WORK ORDER ID#: 124060
- 7 - WORK ORDER ID#: 124059

ITEM ID: D407-667-205RLC AFT CROSSTUBE - HIGH 407

- 8 - WORK ORDER ID#: 124889
- 9 - WORK ORDER ID#: 124891
- 10 - WORK ORDER ID#: 124890

ITEM ID: D350-748-101 FWD CROSSTUBE

- 11 - WORK ORDER ID#: 122970
- 12 - WORK ORDER ID#: 110732
- 13 - WORK ORDER ID#: 111492

ITEM ID: D350-748-201 AFT CROSSTUBE

- 14 - WORK ORDER ID#: 113064
- 15 - WORK ORDER ID#: 110107
- 16 - WORK ORDER ID#: 113066
- 17 - WORK ORDER ID#: 113065

8014-10-29

Action Taken:	Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-17) AS PER ASTM1417M-13 NO CRACK FOUND Pen: ZL-56 BATCH# 09H094 EXP. DATE: AUG 2014, DEV: SKD-S2 EXP. DATE: OCT2017 CLEANER: SKC-S EXP. DATE: APR 2018	OCT 28 2014	 b

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
Name: ANTONINO MARCHETTA		OCT 28 2014

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO26273

Purchase Order Date 10/28/2014

PO Print Date 10/29/2014

Page Number 5 of 8

Order From :
SKYSERVICE
6120 MIDFIELD ROAD
MISSISSAUGA, ONTARIO L5P 1B1
CANADA

VC-SKY001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905-678-5636

Ship To Contact
Ship To Phone
Ship Via: Delivered
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Total: \$98.

12	113065	D350-748-201 CROSSTUBE	10/29/2014	1.00	\$98.53	\$98.
			Yes 4 7:07:00 AM			
AS ABOVE						

Line Total: \$98.

13	113066	D350-748-201 CROSSTUBE	10/29/2014	1.00	\$98.53	\$98.
			Yes 4 7:07:00 AM			
AS ABOVE						

Line Total: \$98.

14	110107	D350-748-201 CROSSTUBE	10/29/2014	1.00	\$98.53	\$98.
			Yes 4 7:07:00 AM			
AS ABOVE						

2014-10-29

Note:

10/29/2014

REFERENCE ONLY**5.0 PARTS LIST**

Qty -101	Qty -201	Part Number	Description
X		D350-748-101	CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD
	X	D350-748-201	CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT
1		D350-748-141	CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD
	1	D350-748-241	CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT
*2	*2	D3502-1	SUPPORT
*2	*2	D2856-400-710	ABRASION STRIP
*1	*1	AELS-1032-225	INSERT
*2	*2	MS21920-20	CLAMP
*1	*1	MS27039-1-10	SCREW
*1	*1	AN960JD10	WASHER
4	4	D3500-1	SADDLE
16	16	D3501-1	BUSHING
16	16	AN4-6A	BOLT
8	8	AN4-41A	BOLT
4	4	AN5-32A	BOLT
32	32	AN960JD416	WASHER
8	8	AN960JD516	WASHER
24	24	MS21042L4	NUT (OR MS21042-4)
4	4	MS21042L5	NUT (OR MS21042-5)

* REFERENCE ONLY. PARTS ARE INCLUDED IN D350-748-141/241 ASSEMBLIES ABOVE

• COPYRIGHT © 2006 BY DART AEROSPACE LTD. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: **B**

Date: 07.06.15